



**Automakers agree.**

**E-10 Unleaded  
is a good fuel.**

See inside for actual  
Owner's Manual statements from  
major automakers regarding  
the use of E-10 Unleaded!

# The facts about E-10 Unleaded.

## **Ethanol is a normal component of today's gasoline:**

All gasoline-powered cars sold in the United States are designed to use E-10 Unleaded. Gasoline containing up to 10% ethanol has been increasing in use in the United States since the late 1970s. Today, over 40% of the gasoline in the U.S. contains ethanol, and the percentage is projected to continue to increase as the U.S. diversifies its fuel sources.

**High octane:** The ethanol in E-10 Unleaded has a neat octane of 97 and a blending octane of 112, making it a high-octane component of today's gasoline.

**Clean burning:** Across the United States, the use of E-10 Unleaded—or reformulated gasoline containing ethanol—has been used to help keep the air clean.

**Energy diverse:** The ethanol in E-10 Unleaded can be made here—boosting our economy, reducing our reliance on foreign oil, and helping to improve our energy security.

**Renewable:** The ethanol in E-10 Unleaded can be made from a variety of renewable sources, such as corn, sorghum, molasses, sugarcane, waste paper, wood waste and yard waste.

**For cars, boats & equipment, not aircraft:** All Federal Aviation Administration (FAA) Supplemental Type Certificates prohibit the use of E-10 Unleaded; do not use in airplanes.

# All cars sold in the United States are designed to use E-10 Unleaded.

Today, over 40% of the gasoline in the United States contains ethanol.

In some states and large metropolitan areas, all of the gasoline contains ethanol—and has for several years.

Gasoline containing ethanol has been available in over 41 states for more than 10 years—and in over 24 states for more than 20 years.

Every automaker approves the use of E-10 Unleaded. You'll see that the wording in the car owner's manuals varies.

Some owner's manuals refer to E-10 Unleaded as "gasohol" or as a "blend of up to 10% ethanol" or under the category of "reformulated gasoline".

A clean fuel system gives better mileage and vehicle performance.

If your system has existing build-up of contaminants, they will be removed from your fuel lines and deposited into the fuel filter. Check and replace your fuel filter if it gets clogged. Once your fuel system is clean, E-10 Unleaded will help to keep it clean.

**No matter what they call it, one fact is clear: E-10 Unleaded is a good fuel.**





# The Word On

## Straight from the owner's manuals of the world's automakers:



### General Motors

*Approval applies to all General Motors products including Buick, Cadillac, Chevrolet, Chevy pickups, GMC pickups, Geo, Oldsmobile and Pontiac.*  
“Gasolines containing oxygenates such as ethers and ethanol, and reformulated gasolines may be available in your area to contribute to clean air. General Motors recommends that you use these gasolines...”

### Ford Motor Company

*Approval applies to all Ford products including Ford, Lincoln, Mercury, and Ford pickups.*  
“Ford endorses the use of reformulated ‘cleaner-burning’ gasolines to improve air quality... These gasolines may contain oxygenates up to 10% ethanol...”

### DaimlerChrysler

*Approval applies to all DaimlerChrysler products including Chrysler, Dodge, Jeep, Plymouth, and Dodge pickups.*  
“Some fuel suppliers blend unleaded gasoline with oxygenates such as 10% ethanol...Fuels blended with these oxygenates may be used in your vehicle. Reformulated gasolines contain oxygenates, and are specifically blended to reduce vehicle emissions and improve air quality. DaimlerChrysler Corporation supports the use of reformulated gasolines. Properly blended reformulated gasolines will provide excellent performance and durability for the engine and fuel system components.”

### Acura

“You may use gasoline containing up to 10 percent ethanol by volume.”

### Audi

“You may use unleaded gasoline blended with alcohol...Blend of gasoline and ethanol...must not contain more than 10% ethanol.”

### BMW

No specific mention of oxygenated fuels made, but use of E-10 Unleaded does not void warranty.

### Honda

“You may use gasoline containing up to 10 percent ethanol by volume. Some conventional gasolines are being blended with alcohol or an ether compound. These gasolines are collectively referred to as oxygenated fuels. To meet clean air standards, some areas of the United States and Canada use oxygenated fuels to help reduce emissions.”

### Hyundai

“Gasohol (a mixture of 90% unleaded gasoline and 10% ethanol)...may be used in your Hyundai.”

### Infiniti

“Infiniti supports efforts toward cleaner air and suggests that you use reformulated gasolines when available...If an oxygenate-blend...is used, it should contain no more than 10% oxygenate.”

### Isuzu

“...gasolines containing oxygenates, such as ethers and ethanol, and reformulated gasolines may be available in your area to help clean the air. Isuzu recommends that you use these gasolines...”

### Jaguar

“Oxygenated gasoline blended with ethanol (Max. 10%)...may be used.”

### Kia

“Do not use gasohol containing more than 10% ethanol.”

### Land Rover

“Gasoline/oxygenated fuel blends...up to 10% of ethanol (Ethyl or grain alcohol) and unleaded fuel mix [may be used].”

### Lexus

“Lexus allows the use of oxygenate blended gasoline where the oxygenate content is up to 10% ethanol...Lexus recommends the use of cleaner burning gasoline and appropriately blended reformulated gasoline. These types of gasoline provide excellent vehicle performance, reduce vehicle emissions, and improve air quality.”

### Mercedes-Benz

“Gasohol, which contains 10% Ethanol and 90% unleaded gasoline, can be used.”

### Mazda

“The common gasoline blend that can be used with your vehicle is ethanol blended at no more than 10%.”

### Mitsubishi

“A mixture of 10% ethanol and 90% unleaded gasoline may be used in your vehicle...Mitsubishi Motors Corporation strongly supports the use of reformulated gasolines. Properly blended reformulated gasolines should have no adverse effects on vehicle performance or the durability of engine and fuel system components.”

### Nissan

“If an oxygenate-blend...is used...it should contain no more than 10% oxygenate...NISSAN supports efforts towards cleaner air and suggests that you use reformulated gasoline when available.”

### Porsche

“You may use oxygenated fuels in your Porsche ... these compounds in the fuel will not affect driveability.”

### Rolls Royce/Bentley

No specific mention of oxygenated fuels made, but use of E-10 Unleaded does not void warranty.

### Saab

“In recent years, a variety of fuel additives and alcohols or oxygenates have been blended with gasoline. Saab approves the use of such ‘reformulated’ gasoline in its products, which helps in reducing pollution from all motor vehicles, provided that the [blend is] up to 10% ethanol by volume...”

### Saturn

“...gasolines containing oxygenates, such as ethers and ethanol, and reformulated gasolines may be available in your area to help clean the air. Saturn recommends that you use these gasolines...Properly blended fuel that is no more than 10% ethanol is fine for your vehicle.”

### Subaru

“Many gasolines are now blended with materials called oxygenates. Use of these fuels can also help keep the air cleaner. Oxygenated blend fuels, such as...ethanol...may be used in your vehicle...”

### Suzuki

“Blends of unleaded gasoline and ethanol...may be used in your vehicle if the ethanol content is not greater than 10%.”

### Toyota

“Toyota allows the use of oxygenate blended gasoline where the oxygenate content is up to 10% ethanol...Toyota recommends the use of cleaner burning gasoline and appropriately blended reformulated gasoline. These types of gasoline provide excellent vehicle performance, reduce vehicle emissions, and improve air quality.”

### Volkswagen

“Blend of gasoline and ethanol [is approved]... blend must not contain more than 10% ethanol.”

### Volvo

“Volvo allows the use of...oxygenated fuels... Fuels containing up to 10% ethanol by volume may be used...”

# E-10 Unleaded is coming to Hawaii.

Beginning April 2, 2006, at least 85% of the gasoline sold in Hawaii will contain 10% ethanol. Another name for this fuel formulation is "E-10 Unleaded".

Ethanol is a renewable resource that could be made from sugarcane and other locally available materials such as waste paper and yard and wood waste. Local fuel production could help bolster our state economy, create new jobs, and lessen our dependence on imported fossil fuels.

Fuel marketers in Hawaii have already begun preparing for the transition, to ensure you will get properly blended E-10 Unleaded gasoline from your favorite service station.

Ethanol-blended gasoline has been used successfully elsewhere in the U.S. for years. We're confident the introduction in Hawaii will be equally successful and we're excited about the opportunities it creates for the State.



## HTDC

This brochure is made possible by the State of Hawaii's High Technology Development Corporation Manufacturing Extension Partnership Program, Supported by the U.S. Dept. of Commerce, Economic Development Administration; and the Hawaii State Department of Business, Economic Development & Tourism.

**More information is available at: [new-fuel.com](http://new-fuel.com)**

